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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,602	01/23/2001	Carl Dietz McCrosky	P2620051 BRW/bw	1733

720 7590 08/11/2004

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EXAMINER

MACE, BRAD THOMAS

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,602

Applicant(s)

MCCROSKY ET AL.

Examiner

Brad T. Mace

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract is over 150 words.

3. The disclosure is objected to because of the following informalities: pg. 1, lines 31-32 state "failure terminal points" corresponding to Figure 1, however, Figure 1 only shows a single failure terminal point. Pg. 9, line 8, should read "Figure 10", not "Figure 12". The word "in" is missing between "unlabelled" and "the" on line 9 of pg. 13. Appropriate correction is required.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference 34 of Figure 1, references 40, 46, 58 of Figure 9, and

references 60, 64, 66, 68, 70, 72 of Figure 10. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claim 3 is objected to because of the following informalities: "m" should be "u" on line 12 of claim 3. On line 12 of claim 1, "said" should be replaced with "a". On line 13 of claim 1, "said" should be replaced with "a". A comma should follow range(Sm) on line 25 of claim 1. A comma should follow $X \leq Y$ on line 9 of claim 4. A comma should follow $X > Y$ on line 11 of claim 4. A comma should follow $Y \leq X$ on line 9 of claim 5. A comma should follow $Y > X$ on line 11 of claim 5. Appropriate correction is required.

6. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Art Unit: 2663

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Allowable Subject Matter

7. Claims 1-6 are allowed.
8. The following is an examiner's statement of reasons for allowance: The prior art fails to teach or make obvious the steps of:

- (a) determining if said switch state S_m exists wherein $c \in \text{domain}(S_m)$ and $d \in \text{range}(S_m)$;
- (b) if said switch state S_m exists wherein $c \in \text{domain}(S_m)$ and $d \in \text{range}(S_m)$ adding said new connection to S_m as (c, d) ;
- (c) if said switch state S_m does not exist wherein $c \in \text{domain}(S_m)$ and $d \in \text{range}(S_m)$, determining if said switch state S_m exists wherein $c \in \text{domain}(S_m)$;
- (d) if said switch state S_m does not exist wherein $c \in \text{domain}(S_m)$, terminating said method by indicating that c is fully allocated;
- (e) if said switch state S_m exists wherein $c \in \text{domain}(S_m)$, determining if a switch state S_n exists wherein $d \in \text{range}(S_n)$;
- (f) if said switch state S_n does not exist wherein $d \in \text{range}(S_n)$, terminating said method by indicating that d is fully allocated;
- (g) if said switch state S_n exists, joining said switch state S_m and said switch state S_n to form a union J by:
 - (i) allocating a label u to each element (i', j') in J if $(i', j') \in S_m$;
 - (ii) allocating a label v to each element (i', j') in J if $(i', j') \in S_n$; and,
 - (iii) adding said new connection (c, d) to J .

considered in combination with other steps recited in claim 1. It is noted that in the closet prior art, Fujii discloses a TST switch applicable to Digital Cross-

Art Unit: 2663

Connect Systems and a rearrangement algorithm where a pre-rearrangement technique is developed that decreases blocking. However, Fujii fails to disclose or render obvious the above limitations as claimed.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

*Fujii discloses the application of a rearrangement algorithm for Digital
Cross-Connect System control

*Lindberg et al. discloses establishing telecommunication connections

*Tanimura et al. discloses a time division multiplex highway switch control
system and control method of T-S-T three-stage switches in an
electronic switching system

*Pawelski discloses a path hunt for efficient broadcast and multicast
connections in multi-stage switching fabrics

*Richards discloses rearrangeable multiconnection switching networks
employing both space division and time division switching

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad T. Mace whose telephone number is

Art Unit: 2663

(703)-306-5454. The examiner can normally be reached on M-F, with the exception of every other Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703)-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btm

Brad T. Mace
Examiner
Art Unit 2663

btm
July 29, 2004


RICKY NGO
PRIMARY EXAMINER